

What is claimed is:

1 *sub B* 1. A distributed component system in a network comprising:  
2 a client node configured to process client activation  
3 requests; and  
4 a server node configured to monitor activation requests from  
5 the client node, said node operating to enable the client node to  
6 activate remote components on available server nodes without  
7 specific names or capabilities of nodes in the network servicing  
8 the requests.

9 2. The system of claim 1, wherein said network comprises a  
10 local-area network, a wide-area network, or Internet.

11 3. The system of claim 1, wherein said activation requests  
12 are processed by a client node that includes enhancements to a  
13 network protocol of the client node.

14 4. The system of claim 1, wherein said server node include  
15 enhancements to a network protocol of the server node.

16 5. The system of claim 1, wherein said distributed system  
17 comprises a DCOM framework.

1           6.    A distributed computing system in a network having a  
2   client and a server, the system comprising:  
3           a first module configured to augment activation capabilities  
4   of the client by intercepting and processing machine-independent  
5   client activation requests; and  
6           a second module coupled to the server, said second module  
7   configured to monitor requests on the server by the client, said  
8   first and second modules enabling the client to trigger creation  
9   of remote components without specific names or capabilities of  
10   network nodes servicing that creation.

11           B 7.   A method comprising:  
12           receiving a machine-independent activation request from a  
13   client in a network;  
14           multicasting said activation request to the network; and  
15           receiving capability information from servers available to  
16   service said activation request.

1           8.    The method of claim 7, wherein the capability  
2   information includes a list of server IP addresses or UNC names  
3   of servers that have the ability to service a request for a  
4   specific CLSID.

1           9. The method of claim 7, wherein the capability  
2 information includes an interface through a CLSID directly.

1           10. A method comprising:  
2           monitoring at a server a specific port to receive a machine-  
3           independent client activation request within a network;  
4           retrieving a client address from an IP packet associated  
5           with the request; and  
6           returning capability information of the server to the client  
7           address.

1           11. The method of claim 10, wherein monitoring the specific  
2           port includes monitoring a port that is tied to a multicast IP  
3           address.

1           12. The method of claim 10, wherein returning includes  
2           returning a server IP address.

1           13. The method of claim 10, wherein returning includes  
2           using a distributed system creation mechanism to create, package,  
3           and return an interface pointer in a location transparent form.

1 14. A method comprising:  
2 receiving a machine independent activation request from a  
3 client in a network;  
4 multicasting said activation request to the network;  
5 B1 requesting capability information from servers available to  
6 service said activation request;  
7 monitoring a port that is tied to a multicast IP address;  
8 retrieving a client address from an IP packet; and  
9 returning capability information of the server to the client  
10 address.

1 15. The method of claim 14, further comprising:  
2 providing a CLSID, an interface identifier, a maximum and  
3 minimum response wait time, a maximum and minimum response count,  
4 and whether server names or IP addresses should be returned,  
5 before the client requests capability information from the  
6 servers.

1 16. The method of claim 15, wherein returning capability  
2 information includes returning one to many server names or IP  
3 addresses capable of servicing said activation request for the  
4 particular CLSID and information identifier requested.

1 17. The method of claim 15, wherein returning capability  
2 information includes returning a pointer to the interface  
3 identifier.

1 18. The method of claim 17, wherein said pointer is  
2 packaged into a location transparent form.

1 19. The method of claim 18, wherein the location  
2 transparent form is a DCOM remote OBJREF in the form of a MEOW  
3 packet.

1 20. A computer program, residing on a computer readable  
2 medium, the program comprising executable instructions that  
3 enable the computer to:

4 receive a machine-independent activation request from a  
5 client in a network;

6 multicast said activation request to the network; and

7 receive capability information from servers available to  
8 service said activation request.

1           21. A computer program, residing on a computer readable  
2 medium, the program comprising executable instructions that  
3 enable the computer to:

4           monitor at a server a specific port that is tied to a  
5 multicast IP address to receive a machine-independent client  
6 activation request within a network;

7           retrieve a client address from an IP packet associated with  
8 the request; and

9           return capability information of the server to the client  
10 address.

11           22. A computer program, residing on a computer readable  
12 medium, the program comprising executable instructions that  
enable the computer to:

1           receive a machine-independent activation request from a  
2 client in a network;

3           multicast said activation request to the network;

4           request capability information from servers available to  
5 service said activation request;

6           monitor a port that is tied to a multicast IP address;

7           retrieve a client address from an IP packet; and

8           return capability information of the server to the client  
9 address.

1           23. A distributed component network comprising:  
2           client nodes configured to be able to request activation of  
3           remote components at run-time without specific names or  
4           capabilities of nodes servicing those requests; and  
5           server nodes operating to monitor the requests and respond  
6           appropriately to service the requests.